WEATHER OF NORTH AMERICA AND ADJACENT OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The following table shows the average sea-level pressure for the month at a number of selected land stations on the coast and islands of the North Atlantic. The readings are for 8 a. m., 75th meridian time, and the departures are only approximate, as the normals were taken from the Pilot Chart and are based on observations made at Greenwich mean noon, or 7 a. m., 75th meridian time:

Station	Average pressure	Departure
	Inches	*Inches*
St. Johns, Newfoundland	29.82	−0.16
Nantucket	29.94	−0.04
Hatteras	29.98	−0.03
Key West	30.08	+0.08
New Orleans	30.00	+0.03
Swan Island	29.87	±0.00
Turks Island	30.07	+0.06
Bermuda	30.11	+0.01
Horta, Azores	30.30	+0.07
Lerwick, Shetland Islands	29.93	+0.13
Valencia, Ireland	29.98	−0.02
London	30.02	+0.08

Judging from reports received, the number of days on which winds of gale force were reported over the steamer lanes was considerably in excess of the normal as shown on the Pilot Chart. Moderate weather was the rule, however, along the American and European coasts and also in southern waters. The greater part of the heavy weather occurred during the first decade of the month, and conditions during the last 15 days were favorable, with a few exceptions.

Fog was unusually prevalent over the greater part of the ocean north of the 40th parallel, the greatest amount occurring in the 5-degree square between the 40th and 45th parallels and the 65th and 70th meridians, where it was observed on 25 days, while in the two squares immediately adjacent to the eastward and westward it was nearly as frequent. Fog was reported on from 5 to 10 days over the eastern section of the steamer lanes, and on from 2 to 4 days in the vicinity of the British Isles.

On the 1st and 2d there was a depression over Newfoundland, with heavy winds over a limited area in the southerly quadrants. Storm log:

Dutch S. S. *Grootendijk:*

Gale began on the 2d, wind S., 9. Lowest barometer 29.36 inches at 9 p. m. on the 2d, wind SW., 9, in latitude 39° 50′ N., longitude 60° 31′ W. End on the 2d, wind NW., 8. Highest force of wind 9, SW. to NW.; shifts SW.–NNW.

Charts VIII to XI cover the period from the 3d to 6th, inclusive, when an unusually severe disturbance prevailed over an extensive area. Storm logs:

British S. S. *Verentia:*

Gale began on the 4th, wind S. Lowest barometer 29.33 inches at 4 p. m. on the 4th, wind W., in latitude 40° 22′ N., longitude 55° 50′ W. End on the 5th, wind NE. Highest force of wind 9, SW.; shifts S.–SW.–W.–N.–NE.

Danish S. S. *Hellig Olav:*

Gale began on the 4th, wind SE. Lowest barometer 28.55 inches at 11 a. m. on the 4th, wind W., 4, in latitude 50° 37′ N., longitude 37° 13′ W. End on the 5th, wind W. Highest force of wind 9; shifts SE.–S.–SW.–W.

British S. S. *Ashtabula:*

Gale began on the 5th, wind SW. Lowest barometer 29.11 inches at 11 p. m. on the 5th, wind SSE., 8, in latitude 46° 30′ N., longitude 33° 12′ W. End on the 6th, wind WNW. Highest force of wind 9, NW.; shifts SSE.–NW.

This disturbance moved slowly eastward and on the 12th was over the North Sea. Turbulent conditions prevailed generally over the eastern section of the ocean, although the intensity and extent of the storm area varied considerably from day to day, reaching its maximum on the 9th, when moderate to strong westerly and southwesterly gales swept the region east of the 40th meridian, between the 40th and 50th parallels. Storm logs:

American S. S. *Docket:*

Gale began on the 8th, wind S. Lowest barometer 29.67 inches at 3 a. m. on the 8th, wind NW., in latitude 40° 25′ N., longitude 34° 30′ W. End on the 8th, wind WNW. Highest force of wind 11; shifts S.–SW.–W.–NW.–NNW.–WNW.

American S. S. *Independence Hall:*

Gale began on the 9th, wind WSW., 6. Lowest barometer 29.60 inches at 5 p. m. on the 9th, wind WSW., 8, in latitude 46° N., longitude 34° 28′ W. End on the 10th, wind W. Highest force of wind 9, SW.; shifts SW.–WSW.

On the 11th a second depression was over Newfoundland. This moved in a northeasterly direction and on the 13th was central somewhere near latitude 55° N., longitude 35° W. On the 11th and 12th gales were reported from vessels in the region between the 40th and 50th parallels and the 40th and 50th meridians. Storm log:

American S. S. *Hera:*

Gale began on the 11th, wind SW. Lowest barometer 29.40 inches at 1 p. m. on the 11th, wind SW., 8, in latitude 46° N., longitude 42° 10′ W. End on the 12th, wind WNW. Highest force of wind 9, SW.; shifts SW.–W.

On the 14th and 15th high pressure with weak gradients prevailed over the greater part of the ocean although on the latter date there was a shallow depression off the west coast of Florida.

On the 15th a waterspout was observed from the British S. S. *San Gil,* Captain Mathews, Observer J. R. Glen, while en route from Philadelphia to Port Limon. Report follows:

On June 15, 2 p. m., observed waterspout forming, bearing south, distance about ½ mile. Waterspout formed and travelled with the wind, NW., crossing ahead about 500 yards, and disappeared into a heavy rain squall. Position, latitude 18° 34′ N., longitude 75° 23′ W.

On the 16th Halifax, N. S., was near the center of a LOW, while high pressure still prevailed over the central and eastern sections of the ocean, and vessels near latitude 46° N., longitude 25° W., reported moderate northerly gales.

From the 17th to 22d moderate weather prevailed over the ocean as a whole, although a few reports of moderate gales were received from vessels in widely scattered localities.

On the 23d there was a disturbance, limited in area, central about 300 miles south of St. Johns, Newfoundland, with moderate westerly gales in the southerly quadrants. On the same day a second LOW was apparently central in mid-ocean, north of the 50th parallel, although it was impossible to locate it accurately on account of lack of observations.

On the 24th the western disturbance was central near latitude 42° N., longitude 40° W., with northerly to westerly gales over a restric ed area.

From the 25th until the end of the month there ensued another period of inactivity, except that on the 27th and 30th a few vessels encountered moderate gales, as shown by the following storm logs:

British S. S. *Manchester Merchant:*

Gale began on the 26th, wind SW. Lowest barometer 29.94 inches at 10 a. m. on the 27th, wind SW., 8, in latitude 50° 48′ N., longitude 36° 31′ W. End on the 27th, wind WNW. Highest force of wind 8; shifts SW.–WNW.

Japanese S. S. *Yeifuku Maru:*

Gale began on the 29th, wind SSE. Lowest barometer 29.79 nches at 8 a. m. on the 30th, wind WSW., 6, in latitude 44° 45′ N., ongitude 38° 18′ W. End on the 30th, wind WNW. Highest orce of wind 7, WSW.; shifts not given.

551.506 (265.2)

NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

It is axiomatic that "June is a quiet month on the North Pacific." In June, 1924, the axiom held good. As in May, the poor visibility, including cloud and frequent fog along the upper steamship routes, was the principal source of trouble to ocean traffic. The British S. S. *Tascalusa,* Hankow to San Francisco, May 30 to June 17, sailed for the entire period under a sky for the most part thickly overcast, while on seven days the observer reported dense fog.

Fog occurred throughout the month in middle and northern latitudes, being most frequent over a considerable area south and southeast of Dutch Harbor; also between latitudes 40° and 45° N., longitudes 155° and 160° E., along the coast of central and northern California. In the area bounded by 47°–52° N., 164°–169° W., fog was noted on 15 days. Considerable fog also occurred in Asiatic waters and along the coast of Lower California. The American S. S. *Victoria,* from Seattle to Nome and return, reported "fog whenever in ice." She observed ice, while northward bound, near 58° N., 167° W. To quote from her "Daily Journal:"

June 8. Made ice pack at 8.50 p. m.; water, 29°; air, 36°; southerly wind.

June 9. Running around ice pack. Stuck in ice at 8 p. m. to-night.

June 10. Stuck in ice. Heavy pack ice to north and west. Dense fog.

After leaving Nome (18th) much ice encountered until the 21st. All then clear of ice at 35 miles north of Nunivak Island (60° N., 166° W.).

During the early half of June the Pacific anticyclone was unusually well developed, but its center was about ten degrees north-northwest of its normal position, which this month lies at 35° N., 145° W. After the 16th the crest receded to the southward, but remained fairly well developed until the close of the month. No depression disturbed this area from the south, but about the 26th a cyclone entered from the west, centered near 45° N., 145° W. On the succeeding four days it covered the Gulf of Alaska and impinged sharply upon the HIGH to the southward.

Aside from this cyclone, low pressures appeared east of Dutch Harbor only on the 7th and 8th. The remnants of the Aleutian LOW remained usually over the western Aleutian Islands or south of them, being partly energized by the generally shallow cyclones which entered the ocean from Japan.

A LOW originated between Hawaii and Midway Island about the 8th, and from then until the 16th affected somewhat this region and that to the northward, though so far as known without causing strong winds.

At Honolulu conditions were nearly normal. The prevailing wind was from the east. The maximum velocity for a five-minute period was 30 miles from the east on the 26th. This is noted as being as high a velocity as has ever been recorded in June at this station.

Pressure at Dutch Harbor continued below normal, its principal deficiency covering the latter half of the month, as was the case in May. The average pressure, based on p. m. observations, was 29.88 inches, or 0.11 inch below normal. The highest pressure, 30.42, occurred on the 10th; the lowest, 29.26, on the 7th. At Midway Island the negative departure was somewhat less pronounced, being 0.05 inch, the average pressure being 30.02 inches. The highest reading, 30.24, was recorded on the 27th and 30th; the lowest, 29.70, on the 13th. Pressure at Honolulu continued to average close to the normal, which for the p. m. observations is 30.03 inches, the departure being +0.02 inch. The highest reading, 30.14, occurred on the 24th; the lowest, 29.91, on the 9th.

Low pressures prevailed in the Far East, but no record is at hand of a typhoon in these waters.

Off the coast of Central America calms and light winds continued. The one gale—force 8, west-northwest—reported from this region occurred south of the Gulf of Tehuantepec on the 21st.

The cyclone which produced the strongest observed winds of the month lay south of the central Aleutians on the 4th and 5th. The Japanese S. S. *Shidzuoki Maru,* Yokohama to Victoria, encountered on the 4th in latitude 48° 55′ N., longitude 170° 30′ W., very high seas with a gale of force 10 from an easterly direction, lowest pressure 29.35 inches. On the same date the Japanese S. S. *Alabama Maru,* similarly bound, fell in with a northerly gale, force 7, in 48° 31′ N., 176° 32′ E. The weather experienced by this vessel intensified during the 5th and at Greenwich noon, in 48° 41′ N., 178° 40′ W., the wind, continuing from the north, attained force 9, with the pressure at its lowest, 29.14 inches. The American S. S. *West Cajoot,* San Francisco to Dairen, came into the influence of this cyclone on the 4th, but did not encounter rough weather until the 5th and 6th, when northerly gales up to force 9 were experienced near latitude 46° N. and between the meridians about 180° and 172° E.

No other gales of consequence occurred in this region until the 15th, when the Japanese S. S. *Tokiwa Maru,* in 48° 40′ N., 177° 20′ E., experienced a north-northwesterly gale, force 8, lowest pressure 29.20 inches.

Meanwhile, on the 6th, 7th, and 8th, northwesterly gales of force 8 to 9 were encountered by vessels off the coast of California near the 125th meridian, between the 35th and 40th parallels. These occurred where the gradient was sharpest between the great LOW, then occupying the western part of the United States and the oceanic HIGH, then near the crest of its development.

Southerly gales of force 8 were also reported on the 7th and 8th from the region near 50° N., 157° W., along the eastern boundary of a cyclone which was then reaching its strongest development for the month over the region of the eastern Aleutians.

No other gales have been reported thus far for the month, except those that occurred on the 23d to 25th in connection with a cyclone of moderate energy which moved from China on the 19th. On the 23d it left northern Japan, wind E. 7, pressure 29.44, at Nemuro, and